

REMARKS

Claims 1-22 are pending in the present application, were examined, and stand rejected. In response, Claims 1, 2, 10 and 19 are amended, no claims are cancelled and Claims 23-28 are added. Applicant respectfully requests reconsideration of pending Claims 1-28 in view of at least the following remarks. Reconsideration and withdrawal of the rejections of record are requested in view of such amendments and the following discussion.

I. Objection to the Drawings

The Examiner has objected to the drawings due to minor informalities. In response, Applicant has provided Replacement Sheets for FIGS. 2 and 11.

Regarding FIG. 2, the Replacement Sheet for FIG. 2 removes the reference to "HPP" and replaces "HPP" with the letter "H" to refer to .H or declaration files, as known to those skilled in the art of the C programming language and the C++ programming languages.

Regarding FIG. 11, the Replacement Sheet for FIG. 11 includes reference to device executable 512 and device executable 524, which are formed according to the embodiments described in Applicant's specification. Accordingly, Applicant respectfully submits that FIG. 11 is not limited to showing what is known, since Applicant respectfully submits that the device executables 512 and 524 are formed in accordance with the embodiments described and illustrate subject matter which is not known in the art. Accordingly, Applicant respectfully requests that the Examiner and reconsider and withdraw the objection to the drawings.

II. Claim Objections

The Examiner has objected to Claim 19 because the claim did not end with a period. Applicant has amended Claim 19 so that Claim 19 now ends with a period.

The Examiner has objected to Claim 2 because the claim referred to "service-control class files", unlike Claim 1, which referred to "service control class files." Applicant has amended Claim 2 so that Claim 2 now refers to "service control class files."

The Examiner has objected to the claim language for encompassing both the concepts and implementation details of the embodiments of the invention. Applicant respectfully disagrees with the Examiner's contention. Specifically, Applicant respectfully submits that there is no statutory basis for limiting claims to only the concepts of the invention and not the invention details. Specifically, claims directed to invention details may be unduly narrow, but if such claims are unanticipated and non-obvious, in view of the prior art, such claims are entitled to patentability.

Regarding the pending claims, Applicant respectfully submits that the pending claims define either procedural methods, computer readable mediums or systems for forming a UPnP device executable or a system including a UPnP device executable formed in accordance with the

embodiments described by the specification. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the objection to the pending claims, including Claims 2 and 19.

III. Claims Rejected Under 35 U.S.C. §103

The Examiner has rejected Claims 1, 2, 4-6, 8-11, 13-15 and 17-22 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application No. 2002/0112058 by Weisman et al. (“Weisman”) in view of U.S. Patent No. 6,549,942 issued to Maximilian J. Spring (“Spring”) and further in view of “UPnP Device Architecture,” June 2000 (“UPnP”). Applicant respectfully traverses this rejection.

To establish a *prima facie* case of obviousness, the following criteria must be met: (1) there must be some suggestion or motivation to modify the reference or combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art references must teach or suggest all the claim limitations. (MPEP §2142) For the reasons provided below, the Examiner has failed to establish a *prima facie* case of obviousness in view of the references of record.

Regarding Claims 1 and 10, Claims 1 and 10, as amended, recite the following patentable claim features, which are neither taught nor suggested by either Weisman in view of Spring and further in view of UPnP, as well as the references of record:

receiving the service control class files including the service-control stub-methods updated by the device developer for responding to actions and events received by a UPnP device described by the UPnP device description document; and
compiling the service-control class files and the updated service-control stub-methods along with a device class library and a UPnP software development kit to generate a UPnP device executable to provide an implementation of a UPnP network protocol for the UPnP device described by the UPnP device description document. (Emphasis added.)

Conversely, as described by Weisman:

The present invention facilitates the development of peer networking capable logical devices, eliminating separate and duplicative implementation of a peer networking protocol by individual logical devices, by providing peer networking hosting of the logical devices. A peer networking host implements the peer networking protocol and provides a programming interface for logical devices and bridges to expose their services to the peer networking protocol using the peer networking protocol and implementation of the host. (See, ¶0004 of Weisman.) (Emphasis added.)

Based on the cited passage above, Applicant respectfully submits that the device hosting framework, as taught by Weisman, eliminates the implementation of a peer networking protocol by individual logical devices (e.g., hosted devices 108 and 109 of FIG. 1). As further described by Weisman;

The Device Host API 102 enables software modules (the hosted devices 108-109 and bridges 110 for bridged devices 112) to publish themselves as peer

networking-enabled devices . . . The Device Host 100 encapsulates the discovery, description, and control protocols of a peer networking protocol, thus requiring hosted devices to implement only their core functionality. (§0034 of Weisman.) (Emphasis added.)

As further described within Weisman:

The hosted devices 108-110 register themselves with the Device Host 100 by providing information about their properties. They also register service objects 220 (FIG. 7) with the Device Host for each service instance they contain. The services on hosted devices are referred to as hosted services. Each service object implements a dispatch interface 230 corresponding to the Service Description for the service that it represents. This dispatch interface is generated automatically from the Service Description by a tool. (See, §0036 of Weisman.) (Emphasis added.)

The registration process referred to above is described beginning at §0050 of Weisman, which describes implementing a hosted device. As indicated:

. . . The implementer of a hosted device must provide:
a description of the device and its services [and]
an implementation of the device's behavior. (See, §§0050-0052 of Weisman.) (Emphasis added.)

As further described with Weisman:

The Device Host API provides a tool 200 that translates a service description 208-209, written as a service description in UTL 202, to a COM dispinterface description 204, written in IDL. . . . The hosted device implementer uses the translation tool 200 to translate each of the UTL interfaces of each service in the device description 206 to an IDL interface, and then implement each IDL interface and service objects 220. . . . In addition to implementing the service objects 220, the hosted device must implement a device control object 240. The purpose of the device control object is to serve as a central point of management and control for the device's service objects 220. At registration time, the device control object 240 will be passed to the Device Host API 102, and when a control request arrives for one of the device's services, the API will call into this device control object to ask for the relevant service object. (See, §0063-0066 of Weisman.) (Emphasis added.)

Based on the cited passages above, as well as FIG. 2 of Weisman, an implementer of the logical device (e.g., hosted device 108) is responsible for generating service objects, as well as a device control object to the host device API to enable communication between the hosted device 108 and the UPnP devices 120-122, as shown in FIG. 1. As expressly stated within Weisman:

The Device Host 100 encapsulates the discovery, description, and control protocols of a peer networking protocol, thus requiring hosted devices to implement only their core functionality. (§0034 of Weisman.) (Emphasis added.)

Conversely, the UPnP device executable, as recited by Claims 1 and 11, provides an implementation of a UPnP network protocol within the device executable by compiling the updated service control stub methods along with the device class library and a UPnP software development

kit. Applicant respectfully submits Weisman teaches away from the features of amended Claims 1 and 11.

As correctly pointed out by the Examiner, Weisman does not mention generating and compiling service control classes. As a result, the Examiner cites Spring. According to the Examiner, it would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement Weisman's UPnP device description disclosure with the compiling and generating executables further taught by Spring, for the purpose of creating and storing the executables for a containment tree structure network device. Applicant respectfully disagrees.

The Examiner also cites UPnP. According the Examiner, the combination of Weisman in view of Spring and further in view of UPnP, teaches or suggests each of the above-recited features of Claims 1 and 10. However, Applicant respectfully submits that the Examiner's citing of both Spring, as well as UPnP, fails to rectify the deficiencies attributed to Weisman, which is strictly limited to eliminating separate and duplicative implementation of a peer networking protocol by individual logical devices by providing peer networking hosting of the logical devices. (See, ¶0004 and ¶0034 of Weisman.)

However, the case law regarding obviousness rejections clearly mandates that to establish a *prima facie* case of obviousness of the claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974.) (MPEP ¶2143.03). Here, Weisman fails to teach and, in fact, teaches away from the implementation of a peer (UPnP) networking protocol by individual logical devices, as recited by amended Claims 1 and 10.

Applicant respectfully submits that the modification of Weisman in view of Spring and further in view of UPnP to render the claimed subject matter obvious would run contrary to the explicit teachings of Weisman. One of ordinary skill would not be motivated to modify Weisman in a manner explicitly contrary to Weisman's own teachings. Accordingly, Applicant respectfully submits that the Examiner fails to establish a *prima facie* case of obviousness due to the absence of a motivation or suggestion for the modification or combination of Weisman in view of Spring and further in view of UPnP, required to teach or suggest each of the recited features of amended Claims 1 and 10. Accordingly, Applicant respectfully submits that the features of Claims 1 and 10, as amended, could only be arrived at through inappropriate hindsight.

Therefore, a *prima facie* case of amended Claims 1 and 10 is not established and the rejection of Claims 1 and 10 is erroneous and should be overturned. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 1 and 10.

Regarding Claims 2, 4-6 and 8, Claims 2, 4-6 and 8, based on their dependency from Claim 1, are also patentable over the combination of Weisman in view of Spring and further in view of

UPnP. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 2, 4-6 and 8.

Regarding Claims 11, 13-15 and 17-18, Applicant respectfully submits that Claims 11, 13-15 and 17-18, based on their dependency from Claim 10, are also patentable over the combination of Weisman in view of Spring and further in view of UPnP. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 11, 13-15 and 17-18.

Regarding Claim 19, Claim 19 recites the following claim features, which are neither taught nor suggested by either the modification or combination of Weisman in view of Spring and further in view of UPnP, as well as the references of record

receive the service control class files including service-control stub-methods updated by the device developer for responding to actions and events received by a UPnP device described by the UPnP device description document,

compile the service-control class files and the updated service-control stub-methods along with a device class library and a UPnP software development kit to generate a UPnP device executable to provide an implementation of a UPnP network protocol for the UPnP device described by the UPnP device description document, and

execute the UPnP device executable to enable response to actions/events received by the UPnP device. (Emphasis added.)

For at least the reasons described above with reference to Claims 1 and 10, Applicant respectfully submits that Weisman specifically teach away from any modification of Weisman required to render Claim 19 obvious. In other words, rendering Claim 19 obvious would require modification of Weisman to provide an implementation of the peer (UPnP) networking protocol within the logical device executables, as recited by Claim 19. However, since Weisman specifically teaches away from such modification, Applicant respectfully submits that one skilled in the art would not modify Weisman, as proposed by the Examiner. Accordingly, Applicant respectfully submits that the features of Claim 19 could only be arrived at through inappropriate hindsight.

Consequently, Applicant respectfully submits that the Examiner fails to establish a *prima facie* case of obviousness since the combination of Weisman in view of Spring and further in view of UPnP explicitly teach away from the modification of Weisman proposed by the Examiner. Consequently, Applicant respectfully submits that Claim 19 is patentable over the combination and modification of Weisman in view of Spring and further in view of UPnP. Therefore, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claim 19.

Regarding Claims 20-22, Claims 20-22, based on their dependency from Claim 19, are also patentable over the combination of Weisman in view of Spring and further in view of UPnP. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 20-22.

The Examiner has rejected Claims 3 and 12 under 35 U.S.C. §103(a) as being unpatentable over Weisman in view of Spring, further in view of “UPnP” and further in view of U.S. Patent Application No. 2002/0035621 by Zintel et al. (“Zintel”). Applicant respectfully traverses this rejection.

Regarding Claims 3 and 12, Claims 3 and 12 depend from Claims 1 and 10, respectively. Regarding the Examiner’s citing of Zintel, Applicant respectfully submits that Zintel fails to rectify the deficiencies attributed to the combination of Weisman in view of Spring and further in view of UPnP. Applicant respectfully submits that Weisman teaches away from the incorporation of a UPnP protocol within a device executable, as recited by amended Claims 1 and 10. In fact, Applicant respectfully submits that modification of Weisman in view of Spring and further in view of UPnP to render the claimed subject matter obvious would run contrary to the explicit teachings of Weisman.

One of ordinary skill in the art would not be motivated to modify Weisman in a manner specifically contrary to Weisman’s own teachings. Accordingly, Applicant respectfully submits that the features of amended Claims 1 and 10 could only be arrived at through inappropriate hindsight. Accordingly, Claims 1 and 10 are patentable over the combination Weisman in view of Spring and further in view of UPnP and further in view of Zintel.

Furthermore, Claims 7 and 16, based on their dependency from Claims 1 and 10, respectively, are also patentable over the combination of Weisman in view of Spring and in view of UPnP and further in view of Zintel. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 3 and 12.

The Examiner has rejected Claims 7 and 16 under 35 U.S.C. §103(a) as being unpatentable over Weisman in view of Spring, further in view of “UPnP” and further in view of “Universal Plug and Play in Windows XP” by Tom Fout (“Fout”). Applicant respectfully traverses this rejection.

Regarding Claims 7 and 16, Claims 7 and 16 depend from Claims 1 and 10, respectively. Regarding the Examiner’s citing of Fout, Applicant respectfully submits that Fout fails to rectify the deficiencies attributed to the combination of Weisman in view of Spring and further in view of UPnP. Applicant respectfully submits that Weisman teaches away from the incorporation of a UPnP protocol within a device executable, as recited by independent Claims 1 and 10. In fact, Applicant respectfully submits that modification of Weisman in view of Spring and further in view of UPnP to render the claimed subject matter obvious would run contrary to the explicit teachings of Weisman.

One of ordinary skill in the art would not be motivated to modify Weisman in a manner specifically contrary to Weisman's own teachings. Accordingly, Applicant respectfully submits that the features of Claims 1 and 10 could only be arrived at through inappropriate hindsight. Hence, Claims 1 and 10 are patentable over the combination Weisman in view of Spring and further in view of UPnP and further in view of Fout.

Furthermore, Claims 3 and 12, based on their dependency from Claims 1 and 10, respectively, are also patentable over the combination of Weisman in view of Spring and in view of UPnP and further in view of Fout. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 7 and 16.

IV. New Claims

Regarding new Claims 23-28, new Claims 23-28 recite patentable claim features, which are neither taught nor suggested by the references of record for at least the reasons described above with regard to providing a device executable, which supports the UPnP network protocol. Accordingly, Applicant respectfully requests that the Examiner allow new Claims 23-28.

CONCLUSION

In view of the foregoing, it is submitted that Claims 1, 3-6, 8-18 and 20, as amended, patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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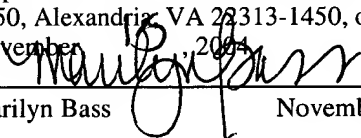
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Marilyn Bass

November 15, 2004